Fact Sheet
October

Dow Chemical Company

901 Loveridge Road, Pittsburg, CA 94565

Draft Hazardous Waste Facility Boiler and Industrial Furnace Permit and Draft CEQA Negative Declaration

It is DTSC's mission to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.

State of California

California Environmental Protection Agency

INTRODUCTION

The California Environmental Protection Agency (Cal/EPA), Department of Toxic Substances Control (DTSC) is seeking public input on a draft hazardous waste permit for The Dow Chemical Company (Dow) at its facility located on Loveridge Road in Pittsburg, California. The permit would authorize the continued storage of hazardous waste generated on-site and its processing in boiler & industrial furnaces. The treatment units consist of the two boiler & industrial furnaces (also known as Halogen Acid Furnaces) and associated hydrochloric acid recovery and air pollution control systems.

Past Public Participation Activities

The United States Environmental Protection Agency (EPA) public noticed the receipt of a permit application for storage and processing of hazardous waste in the two Halogen Acid Furnaces (HAF units) from The Dow Chemical Company, Pittsburg, California in May 1995.

DTSC public noticed the receipt of the proposed Trial Burn Plan for the HAF units on March 10, 1998.

DTSC did not receive any comments from the public during any of the above public comment periods.

Public Hearing & Comment Period

DTSC will hold a public workshop and public hearing on the draft Boiler and Industrial Furnace (BIF) Permit and draft CEQA Initial Study and Negative Declaration on November 28, 2001.

Workshop: 3 p.m. - 5 p.m.
Public Hearing: 7 p.m. - 9 p.m.

Location: Pittsburg City Hall at 65 Civic Avenue, Pittsburg, CA

Members of the public are welcome to submit comments between October 26, 2001 and December 14, 2001 by writing to:

Waqar Ahmad, PhD, PE
DTSC
700 Heinz Avenue, Suite 200
Berkeley, California 94702

Phone: (510) 540-3932
Fax: (510) 540-3937
e-mail: wahmad@dtsc.ca.gov

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demands and cut your energy costs, see our website at www.dtsc.ca.gov.

FACILITY LOCATION

The Dow Chemical Co. is located at the end of Loveridge Road in Pittsburg, Contra Costa County, California. Adjacent land is primarily heavy industrial, agricultural or unused. The site consists of approximately 450 acres, about half of which are undeveloped and half are used for industrial manufacturing activities. The Pittsburg facility is zoned for industrial use that is consistent with both the City of Pittsburg and Contra Costa County General Plans. The closest residences are about one mile from the HAF units. The nearest school and hospital are approximately two miles from the facility boundary. No agricultural activity takes places within one mile of the Pittsburg facility.

Facility Description

The Dow Chemical Co. Pittsburg facility currently operates 24-hours per day, seven days per week. Operations include research and development and the manufacture of products for agricultural operations, pest control services, paper manufacturers, carpet mills, and biocides. During the manufacture of chemical products at the facility, liquid by-products are produced which are thermally oxidized in the HAF units. These units also treat tank and process vent gaseous emissions. Aqueous hydrochloric acid (HCl) is produced as a result of thermally oxidizing the chlorinated liquids and gas streams in the HAF units. The HCl is sold as a product to various industrial customers and is also used within the Dow Chemical plant. The HAF units have been in operation for over 20 years. The HAF units are an integral part of general production operations since the units manufacture hydrochloric acid product.

THE RCRA PERMITTING PROCESS

The owners of hazardous waste treatment, storage, and disposal facilities (TSDF) are required to obtain permits from the Department of Toxic Substances Control. DTSC is authorized by the United States Environmental Protection Agency to implement the RCRA Permit program. The owner must submit a permit application, which contains technical information about the TSDF. This information includes equipment design, waste analysis plans, emergency response plans, closure plans, and other information. DTSC conducts a technical review of the permit application. Upon completion of technical review by DTSC a determination is made on whether the application meets all applicable standards. DTSC then either proposes to issue a draft permit or proposes to deny the permit application depending on the technical adequacy of the application. The public is advised of the proposal to issue a draft permit (or denial) by issuing a public notice regarding the draft permit through the local media (newspaper advertisement). Also, the public notice and a fact sheet are mailed to the public stating the basis for the proposed decision and announcing a minimum 45-day public comment period. During the public comment period, DTSC receives comments from the public regarding the proposed decision. A public hearing is held if requested by any member of the public or if DTSC determines there is significant public interest in the proposed decision. A court reporter is available at the public hearing to record public comments received. DTSC may revise the draft permit or change its decision based on public comments. Both the facility owner/operator

and participating public have a right to appeal the final permit decision.

Regulated Hazardous Waste Management Units That Would Be Authorized By the BIF Permit

The following regulated units will be authorized for continued operation under the draft BIF Permit.

1. Symtet Halogen Acid Furnace (ST HAF): The ST HAF unit burns about 500 pounds per hour (lb/hr) of liquid chlorinated hydrocarbons and variable amounts of gases and vapors from Dow manufacturing processes and tanks.

2. Manufacturing Services Halogen Acid Furnace (MS HAF): The MS HAF unit burns about 600 lb/hr of chlorinated pyridines and variable amounts of gaseous process vent streams.

3. Liquid Hazardous Waste Storage Tanks T-501B and T-502A: These two tanks store liquid hazardous waste feed that is processed in the ST HAF unit. The volume of each tank is approximately 15,000 gallons.

4. Waste Storage Tank T-12: This tank stores liquid hazardous waste that is processed in the MS HAF unit. The volume of the tank is approximately 3,750 gallons.

Both halogen acid furnaces produce hydrochloric acid by thermal oxidation at temperatures between 1,000 degrees Centigrade (°C) and 1,500 °C. The HAF units have destruction and removal efficiencies (DREs) greater than 99.99%. This means that 99.99% of feed waste constituents are converted to hydrochloric acid, water, and carbon dioxide.

PERMITTING HISTORY

Dow Chemical is operating under interim status. The HAF units have been regulated by the US Environmental Protection Agency (USEPA) since the BIF rule became law in 1991. In February 1992, Dow submitted a BIF permit application to USEPA. For existing facilities like Dow, the BIF rule required compliance certifications (to be prepared every three years) while they were operating under interim status. These certifications document conformance with air emission standards specified in the BIF rule (40 CFR 266.104-107). Dow submitted compliance certifications in August 1992, 1995, 1998, and 2001.

The operation of the HAF units have also been regulated by Bay Area Air Quality Management District (BAAQMD) permit since June 1973. The BAAQMD permit contains specific conditions and limitations for operation of the HAF units. The Dow Pittsburg site is also subject to the BAAQMD Toxic Hot Spots legislation and BAAQMD fugitive emission control rules. The primary air contaminant of the HAF units is nitrogen oxides.

Trial Burn

To estimate actual emissions of constituents of concern for input into a Health Risk Assessment (HRA) and to establish operating conditions for the HAF units, a Trial Burn Plan was prepared in March 1999. The plan was designed to demonstrate that the HAF units meet applicable air emission standards, and gather actual emissions data for various constituents of concern for input into the HRA.

Trial burns were conducted between October 1999 and March 2000. The HAF units were operated under three different operating conditions and samples were collected for each condition. The trial burn defined worst-case operating conditions for the HAF units and demonstrated that the units can meet air emission standards for this wide range of operating conditions. These operating conditions have been used to establish permit conditions in the draft BIF permit.

Health Risk Assessment

The Dow Chemical Company has prepared a Health Risk Assessment (HRA) to support the permit application and CEQA initial study. This HRA was prepared in accordance with procedures approved by DTSC. Emissions from the HAF units were determined by the trial burn program. The emissions calculated from trial burns were entered into a DTSC/EPA approved health risk assessment model with specified exposure assumptions to estimate potential risk to human receptors. The results of the HRA conclude that the estimated upper limit of additional cancer risk at the nearest residences is approximately one in a million (1.43×10^{-6}). The risk to an onsite worker is less than the nearest resident due to the reduced exposure time assumed in the HRA. DTSC and USEPA consider this additional level of risk to be insignificant.

RCRA Corrective Action Activities

In 1986, the United States EPA prepared a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) report that identified 25 Solid Waste Management Units (SWMUs) at the Dow Pittsburg facility. A SWMU is any facility equipment that handled hazardous waste or hazardous material that released or had the potential to release hazardous constituents to environmental media.

Sitewide RCRA corrective action cleanup at the Dow Pittsburg facility is currently being overseen by the San Francisco Regional Water Quality Control Board.

COMPLIANCE HISTORY

DTSC conducts periodic inspections of this facility. The last inspection was made in April 2001. No violations were found.

California Environmental Quality Act (CEQA)

DTSC has prepared an Initial Study in accordance with the provisions of the California Environmental Quality Act. The results of this Initial Study are that there are no significant adverse effects on human health and the environment associated with the operation of these furnaces. Therefore, DTSC has prepared a draft CEQA Negative Declaration.

GLOSSARY

BIF: Boiler and Industrial Furnace:

Boiler: means an enclosed device using controlled flame combustion that has physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids or heated gases.

Industrial Furnace: means any enclosed devices that are integral components of manufacturing processes and use thermal treatment to accomplish recovery of materials or energy: cement kilns, halogen acid furnaces, etc.

CEQA: California Environmental Quality Act: A statute established in 1970 that requires state and local agencies to determine if there are significant environmental impacts associated with their actions, and to avoid or mitigate those impacts, if feasible.

HAF: Halogen Acid Furnace: This is a combustion unit that processes materials containing fluorides, bromides, or chlorides to produce acids such as hydrochloric acid.

Hydrochloric acid: A corrosive and fuming liquid.

Interim status: means the authorization granted by the Department or the USEPA which allows a facility to continue to operate pending review and decision of the facility's permit application.

Nitrogen oxides: This is a generic term used to include all forms of oxides of this compound (e.g., nitrous oxide, nitric oxide, etc.).

RCRA: The Resource Conservation and Recovery Act, an amendment to the Solid Waste Disposal Act, enacted in 1976 by the U.S. Congress to address the problems associated with municipal and industrial solid waste generated nationwide.

Anuncio

Si prefiere hablar con alguien en español acerca de ésta información, favor de llamar a Jacinto Soto, Departamento de Control de Substancias Tóxicas. El número de teléfono es (510) 540-3842.

For More Information

If you would like more information about the Site, please call Project Manager, Waqar Ahmad at (510) 540-3932 or DTSC Public Participation Specialist, Jesus Cruz at (510) 540-3933.

Information Repositories

The permit application, draft permit, CEQA Initial Study, and the Negative Declaration are available for public review at the following locations:

Pittsburg Public Library
80 Power Avenue
Pittsburg, CA 94509
Phone (925) 427-8390

Antioch Public Library
501 West 18th Street
Antioch, CA 94509
Phone (925) 757-9224

The full administrative record is available at:

DTSC File Room
700 Heinz Avenue
Berkeley, CA 94710
Phone (510) 540-3800

Notice to Hearing Impaired Individuals

TDD users can obtain additional information about the Site by using the California State Relay Service (1-888-877-5378) to reach Public Participation Specialist at (510) 540-3933.

PPS - Jesus Cruz
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